

10/061,963



Attorney Docket No. 20496/321

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Group Art Unit: 3673
Examiner: Michael Safavi

Application of :	Martin Steinwender
Serial No. :	10/061,963
Filing Date :	February 1, 2002
Entitled :	JOINT BETWEEN JOINT FACES OF TWO COMPONENTS

Mail Stop Appeal Brief-Patents
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<i>Diane Elder</i> Signature	<i>4/21/05</i> Date

BRIEF ON APPEAL

Sir:

Appellant submits the following Brief on Appeal in connection with the above-identified patent application.

I. REAL PARTY IN INTEREST

The real party in interest in the above application is the assignee, Fritz Egger GmbH & Co., having a place of business located at Tiroler Str. 16, 3105 Unterradlberg, Austria.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to appellant, the appellant's legal representative, or the assignee which will directly affect or be directly affected by, or have a bearing on, the Board's decision in the pending Appeal.

III. STATUS OF CLAIMS

Claims 11, 21-22, and 25-37 have been cancelled or withdrawn.

Claims 1-10, 12-20, 23 and 24 are pending in the application.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. §1.116(b) is being filed concurrently herewith to overcome an objection to a minor informality in claim 24. No other Amendment Under 37 C.F.R. § 1.116(b) has been filed.

V. SUMMARY OF THE INVENTION

Referring to the Drawings, the invention is for a joint between two structural components, such as the two structural components 2 and 4 shown in Fig. 1. The components have joint faces 6 and 9 which correspond and contact each other when brought together as shown for the tongue 12 and the groove 10 shown in Fig. 1. A matrix material 14 or 16 is positioned on at least one of the joint faces. Dispersed within the matrix are capsules 18 as shown in Fig. 3. The capsules are dispersed in such a way that the matrix is divided into at least two layers, one of which contains the capsules and the other of which contains no capsules as shown in Figs. 3b, 3c, and 3d. Thus, the embodiment shown in Fig. 3a is not being claimed. Within the capsules is a material for

a reaction adhesive which, upon rupture of the capsules, is released entirely within the matrix.

VI. ISSUES

(1) Whether the final rejection of claims 1-10, 12-17, and 24 under 35 U.S.C. 102(b) as being anticipated by US 3,639,137 (Marinelli, US '147) should be reversed?

(2) Whether the final rejection of claims 1-10, 12-17, and 24 under 35 U.S.C. 103(a) as being unpatentable over US 6,004,417 (Roesch et al., US '417) in view of Marinelli should be reversed?

(3) Whether the final rejection of claims 1-10, 12-20, and 23-24 under 35 U.S.C. 103(a) as being unpatentable over either US 4,242,390 (Nemeth, US '390) or DE 297 03 963 (DE '963) in view of Roesch et al. and further in view of Marinelli should be reversed.

(4) Whether the final rejection of claims 1-10, 12-20, and 23-24 under 35 U.S.C. 103(a) as being unpatentable over either Nemeth or DE '963 in view of Marinelli should be reversed?

(5) Whether the final rejection of claims 10, 13, and 15 under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of US 3,657,379 (Hilbelink, US '379) should be reversed?

VII. GROUPING OF CLAIMS

All of the claims stand and fall with claims 1 and 24.

VIII. ARGUMENT

As discussed above, independent claims 1 and 24 are directed to the embodiments illustrated in Figs. 3b, 3c, and 3d, but not to the embodiment shown in Fig. 3a. Thus, claims 1 and 24 recite that:

- (a) the capsules are “dispersed” completely within the matrix;
- (b) the matrix comprises at least two matrix layers;
- (c) at least one of the two matrix layers contains the “dispersed” capsules and at least one of the two matrix layers contains no capsules; and
- (d) the capsules at least partially release the material contained therein completely within the matrix under external influence.

It is submitted that none of the prior art cited by the Examiner discloses or suggests this combination of features. In issuing the final rejection, the Examiner relied heavily on US ‘137 (Marinelli). This prior art reference was cited in each of the grounds for rejection contained in the final rejection. Evidently, the Examiner felt that this was the only reference showing the matrix material separated into two matrix layers, with the capsules completely dispersed within one of these layers, and the other layer not containing any capsules, as required by claims 1 and 24.

Thus, the Examiner asserted that Figs. 1-3 of US ‘137 disclose a joint between components utilizing a multicomponent adhesive, which adhesive can take the form of a layer of matrix 29/30 containing microcapsules 28. The Examiner further stated that layers of the matrix 29/30 (such as the uppermost layer and the lowermost layer) do not

possess microspheres with the microspheres lying in the central portion of the matrix, citing col. 4, lines 1-17. The Examiner further asserted that the matrix of US '137 contains at least one element of the reaction adhesive system with the capsules containing at least a second element of the reaction adhesive system. The Examiner further asserted, on page 7 of the Final Office Action dated October 21, 2004, that US '137 discloses a system having a matrix with "multiple capsules dispersed completely within," again citing col. 4, lines 1-17, for support.

However, a careful reading of col. 4, lines 1-17, reveals that it does not disclose or suggest the claimed invention, namely, a joint having a two-layer matrix, with capsules completely dispersed in one matrix layer and with no capsules dispersed in the other matrix layer. Nor does col. 4, lines 1-17, disclose "a matrix with capsules completely within" as asserted by the Examiner.

US '137 discloses a pressure-activated encapsulated sealant system. As illustrated in Figs. 1-3, and as explained at col. 2, lines 31-49, and col. 4, lines 21-74, the adhesive system of US '137 consists of a binder film comprising a lower layer 29 and an upper layer 30, and curing agent particles dispersed therein. The adhesive system further comprises a liquid curable sealant material contained within pressure rupturable capsules 28. Capsules 28 are very large in comparison to the thickness of the binder film, as clearly illustrated in Fig. 1, of US '137. Further, as stated at col. 4, lines 21-30, the binder film is of minor dimension in thickness with respect to the size of the capsules, so

that the capsules are only "partially embedded" in the binder film. See also col. 2, lines 46-49 ("partially embedded therein").

Additionally, US '137 describes and illustrates the finely divided curing agent particles as being "dispersed" in the layers 29, 30 (see, e.g., col. 4, lines 35-36). However, this term is not applied to capsules 28. Considering the relative size of capsules 28 in comparison to layers 29 and 30, no person of ordinary skill in the art would consider the capsules 28 of US '137 as being "completely dispersed" within the matrix as required by claims 1 and 24. See Fig. 1 of US '137. Nor would a person of ordinary skill in the art consider capsules 28 to be "dispersed" within one matrix layer and absent from another matrix layer. Rather, as stated in US '137, the capsules 28 are "dusted" onto the binder film so that they are "partially embedded" therein. See col. 2, line 49; col. 4, lines 3 and 25-26. This is very different from being "completely dispersed" within the matrix.

In contrast to US '137, claims 1 and 24 require that the microcapsules be "dispersed completely within the matrix." Furthermore, claims 1 and 24 require that the microcapsules be within one of the matrix layers and be absent from the other matrix layer. These claims also require that the capsules release their contents completely within the matrix under external influence.

It is therefore submitted that claims 1 and 24, as well as all of the claims which depend from them specify a structure which is neither disclosed nor suggested by US

'137. Accordingly, withdrawal of the rejection of all claims as being anticipated by US '137 is respectfully requested.

The remaining grounds for rejection under 35 U.S.C. 103(a) all rely on US '137 as disclosing the "complete dispersal" limitations. However, as demonstrated above, these "dispersal" limitations are not in fact disclosed or suggested by US '137. Accordingly, withdrawal of all rejections under U.S.C. 103(a) is respectfully requested.

IX. CONCLUSION

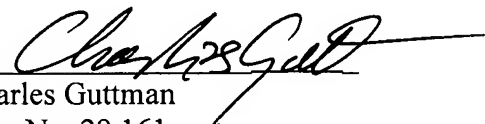
For the reasons stated above, it is requested that the Examiner's rejection of all pending claims under 35 U.S.C. 102(b) and under 35 U.S.C. 103(a) be reversed.

Respectfully submitted,

PROSKAUER ROSE LLP
Attorney for Applicant(s)

Date: April 21, 2005

PROSKAUER ROSE LLP
1585 Broadway
New York, NY 10036-8299
Telephone: (212) 969-3000

By 
Charles Guttman
Reg. No. 29,161

APPENDIX OF CLAIMS ON APPEAL

Claim 1. A joint between two structural components comprising:

- (a) joint faces on both components wherein the joint faces at least partially correspond with one another and at least partially contact one another in the jointed state;
- (b) a matrix positioned on at least a part of at least one of the joint faces;
- (c) multiple capsules dispersed completely within the matrix; and
- (d) a material of a reaction adhesive system contained in the capsules,

wherein the matrix comprises at least two matrix layers, wherein at least one of the two matrix layers contains the dispersed capsules and at least one of the two matrix layers contains no capsules, and wherein at least part of the capsules at least partially release the material contained therein completely within the matrix under external influence.

Claim 2. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of force, wherein said force is selected from the group consisting of pressure and friction.

Claim 3. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of external energy, wherein the external energy is selected from the group consisting of thermal energy, ultrasound energy, high frequency energy, light energy, and UV energy.

Claim 4. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of a liquid, wherein said liquid comprises water.

Claim 5. The joint according to claim 1, wherein the matrix is made of an adhesive, resin or wax.

Claim 6. The joint according to claim 5, wherein the matrix effects a seal of the joint face.

Claim 7. The joint according to claim 1, wherein the material reaction adhesive system comprises at least two elements, the capsules contain a first element of the material reaction adhesive system, and water represents the second element.

Claim 8. The joint according to claim 1, wherein the material reaction adhesive system comprises at least two elements, the capsules contain at least one element of the material reaction adhesive system, and the matrix at least partially comprises a second element of the material reaction adhesive system.

Claim 9. The joint according to claim 8, wherein the capsules or the matrix have at least one further element of the material reaction adhesive system.

Claim 10. The joint according to claim 8, wherein the material reaction adhesive system comprises at least two different types of capsules having different elements of the material reaction adhesive system.

Claim 11. (Cancelled)

Claim 12. The joint according to claim 1, wherein the at least two matrix layers comprise different elements of the material reaction adhesive system.

Claim 13. The joint according to claim 1, wherein the two matrix layers comprise different elements of the material reaction adhesive system.

Claim 14. The joint according to claim 1, wherein both joint faces comprise the matrix containing capsules.

Claim 15. The joint according to claim 14, wherein one of the joint faces comprise a matrix having first capsules and the other of the joint faces comprise a matrix having second capsules, with the first capsules containing a first element and the second capsules containing a second element of a material reaction adhesive system.

Claim 16. The joint according to claim 1, wherein the joint faces of both structural components abut against one another.

Claim 17. The joint according to claim 1, wherein the joint faces of both structural components are implemented as a tongue and groove joint.

Claim 18. The joint according to claim 1, wherein at least one structural component is made of a cellulose-containing material.

Claim 19. The joint according to claim 18, wherein at least one structural component is made of wood or a wooden material.

Claim 20. The joint according to claim 18, wherein one of the two structural components is made of a cellulose-containing material, and the other of the two structural components is made of a metal or a plastic.

Claims 21-22. (Cancelled)

Claim 23. (Previously Presented) The joint according to claim 1, wherein the structural components are panels of a floor covering.

Claim 24. (Previously Presented) A structural component comprising:

- (a) at least one joint face for a joint with further components;
- (b) a matrix positioned on at least part of said at least joint face;
- (c) multiple capsules dispersed completely within the matrix; and
- (d) a material of a reaction adhesive system contained in the capsules, wherein

the matrix comprises at least two matrix layers, wherein at least one of the two matrix layers comprises the dispersed capsules and at least one of the two matrix layers comprises no capsules, and wherein at least a part of the capsules at least partially release the material contained in them completely within the matrix under external influence.

Claims 25-37. (Withdrawn)